# NOTIFICATION OF ADDENDUM ADDENDUM NO. 1 DATED 1/12/2009

Control	1804-01-057, ETC.
Project	CBI 2009(291)
Highway	SP 115, ETC.
County	HIDALGO

#### Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

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SUBJECT: PLANS AND PROPOSAL ADDENDUMS
      PROJECT: CBI 2009(291)
                              CONTROL: 1804-01-057
      COUNTY: HIDALGO
      LETTING: 01/13/2009
      REFERENCE NO: 0108
                         PROPOSAL ADDENDUMS
_____
  PROPOSAL COVER
X BID INSERTS (SH. NO.: 3 & 10 OF 17.
X GENERAL NOTES (SH. NO.: F, K THRU W (SHEET "W" IS NEW SHEET).
_ SPEC LIST
             (SH. NO.:
 SPECIAL PROVISIONS:
  ADDED:
      DELETED:
  SPECIAL SPECIFICATIONS:
  ADDED:
      DELETED:
X OTHER: SEE CHANGES BELOW.
DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)
PROPOSAL:
*****
BID INSERTS -
REPLACED BID ITEM 341-2136 WITH BID ITEM 341-2135.
REPLACED BID ITEM 545-2022 WITH BID ITEM 545-2001.
REPLACED BID ITEM 545-2024 WITH BID ITEM 545-2003.
GENERAL NOTES -
_____
ON SPEC DATA SHEET "F", UNDER ITEM 302, REVISED CLASSIFICATION.
ON SPEC DATA SHEET "K", UNDER ITEM 423, ADDED NOTES FOR MSE WALLS
AND SUPPLIERS.
ON SPEC DATA SHEETS "L" THRU "W", (SHEET "W" IS A NEW SHEET),
TEXT SHIFTED FROM PAGE TO PAGE.
DESCRIPTION OF ABOVE CHANGES
                                                             (CONTINUED)
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(INCLUDING PLANS SHEET CHANGES)

#### PLANS:

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PLAN SHEET 2 (INDEX OF SHEETS) -

ADDED NEW PLAN SHEETS 26K, 86A & 86B TO INDEX OF SHEETS.

OMITTED SHEET 273 FROM INDEX OF SHEETS.

UPDATED SHEET TITLES FOR PLAN SHEETS 269 - 272, 276 - 279, 284 - 288. MULTIPLE TRAFFIC STANDARD SHEETS WERE RECENTLY UPDATED (YEAR 08).

PLAN SHEET 13A (TYPICAL SECTION) - REVISED DETAIL "A".

PLAN SHEETS 14 & 16 (SUMMARY TABLES) - REVISED SHEETS AS DESCRIBED ABOVE IN THE BID INSERTS OF THE PROPOSAL.

PLAN SHEETS 22 & 24 (E & Q SHEETS) - REVISED SHEETS AS DESCRIBED ABOVE IN THE BID INSERTS OF THE PROPOSAL.

PLAN SHEETS 26B, 26E - 26J (GENERAL NOTES) - REVISED SHEETS AS DESCRIBED ABOVE IN THE GENERAL NOTES OF THE PROPOSAL.

PLAN SHEET 26K (GENERAL NOTES) - NEW SHEET ADDED TO PLANS DUE TO SHIFTING OF TEXT.

PLAN SHEET 86A (TRACC(N)-05) - NEW STANDARD SHEET ADDED TO PLANS.

PLAN SHEET 86B (SMTC(N)-06) - NEW STANDARD SHEET ADDED TO PLANS.

PLAN SHEET 191 (BRIDGE LAYOUT) ORIGINAL SHEET 191 WAS INADVERTENT DUPLICATE OF SPUR 115 SB (SHT. 172).
REPLACED EXISTING SHEET 191 WITH CORRECT VERSION OF SPUR 115 NB.

PLAN SHEETS 269 THRU 272 (TSR (1)-08, TSR (3)-08, TSR (4)-08, TSR (5)-08)-REPLACED EXISTING TRAFFIC STANDARD SHEETS WITH UPDATED SHEETS.

PLAN SHEET 273 (TSR (6)-03) - OMITTED SHEET FROM PLANS.

PLAN SHEET 276 (SMD (GEN)-08) - REPLACED EXISTING TRAFFIC STANDARD SHEET WITH UPDATED SHEET.

PLAN SHEETS 277 THRU 279 (SMD (SLIP-1)-08, (SLIP-2)-08, (SLIP-3)-08) - REPLACED EXISTING TRAFFIC STANDARD SHEETS WITH UPDATED SHEETS.

PLAN SHEETS 284 THRU 286 (SMD (2-1)-08, (2-2)-08, (2-4)-08) - REPLACED EXISTING TRAFFIC STANDARD SHEETS WITH UPDATED SHEETS.

PLAN SHEETS 287 & 288 (SMD (8W1)-08 & (8W2)-08 REPLACED EXISTING TRAFFIC STANDARD SHEETS WITH UPDATED SHEETS.

	ITI	EM-COI	)E					DEDE
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WORI		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	100	2002	002	PREPARING ROW and	DOLLARS CENTS	STA	220.330	1
	104	2009		REMOVING CONC (RIPRAP) and	DOLLARS CENTS	SY	246.000	2
	104	2011		REMOVING CONC (MEDIANS) and	DOLLARS CENTS	SY	330.000	3
	104	2015		REMOVING CONC (SIDEWALKS and	) DOLLARS CENTS	SY	1,229.000	4
	104	2021		REMOVING CONC (CURB) and	DOLLARS CENTS	LF	4,480.000	5
	104	2022		REMOVING CONC (CURB AND C	GUTTER) DOLLARS CENTS	LF	3,056.000	6
	104	2040		REMOVING CONC (PAVERS) and	DOLLARS CENTS	SY	16.000	7
	105	2019		REMOVING STAB BASE & ASPH	PAV(14") DOLLARS CENTS	SY	2,995.000	8
	110	2001		EXCAVATION (ROADWAY) and	DOLLARS CENTS	CY	26,083.000	9
	132	2006		EMBANKMENT (FINAL)(DENS C	CONT)(TY C) DOLLARS CENTS	CY	14,720.000	10
	134	2002		BACKFILL (TY B) and	DOLLARS CENTS	STA	367.800	11

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ALT	ITEM NO	DESC CODE	S.P. NO.			UNIT	APPROX QUANTITIES	DEPT USE ONLY
	164	2028	002	CELL FBR MLCH SEED(PERM)(URBAN)(CLAY) and	DOLLARS CENTS	AC	2.750	12
	164	2030	002	CELL FBR MLCH SEED(TEMP)(V	VARM) DOLLARS CENTS	AC	2.750	13
	164	2036	002	DRILL SEEDING (PERM) (RURA	L) (CLAY) DOLLARS CENTS	AC	5.400	14
	164	2042	002	DRILL SEEDING (TEMP) (WARM and	DOLLARS CENTS	AC	5.400	15
	204	2003		SPRINKLING (DUST CONTROL) and	DOLLARS CENTS	MG	1,628.000	16
	247	2225	026	FL BS (RDWY DEL)(TY E GR 4)(I	FNAL POS) DOLLARS CENTS	CY	40,485.500	17
	260	2011	001	LIME TRT (EXST MATL) (12") and	DOLLARS CENTS	SY	104,713.300	18
	260	2043	001	LIME (HYD, COM OR QK)(SLUR and	RY) DOLLARS CENTS	TON	3,025.480	19
	260	2063	001	LIME TRT (NEW BASE) (4") and	DOLLARS CENTS	SY	5,348.000	20
	260	2064	001	LIME TRT (NEW BASE) (16") and	DOLLARS CENTS	SY	96,324.400	21

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ALT	ITEM NO	NO CODE NO. WRITTEN IN WORDS  310 2001 PRIME COAT (MC-30)		UNIT	APPROX QUANTITIES	DEPT USE ONLY		
	310	2001		PRIME COAT (MC-30)	DOLLARS CENTS	GAL	18,840.200	22
	316	2174		AGGR(TY-B GR-4 SAC-B)	DOLLARS CENTS	CY	740.500	23
	316	2396		ASPH (AC-10 OR HFRS-2) and	DOLLARS CENTS	GAL	21,946.100	24
	316	2421		ASPH (AC-10 OR HFRS-2P) and	DOLLARS CENTS	GAL	4,626.500	25
	341	2135	020	D-GR HMA(QCQA) TY-D SAC-A	PG76-22 DOLLARS CENTS	TON	37,444.000	26
	354	2036		PLANE CONC PAV(0" TO 1-1/2") and	DOLLARS CENTS	SY	9,624.500	27
	360	2003		CONC PVMT (CONT REINF-CRC and	P)(10") DOLLARS CENTS	SY	5,257.000	28
	409	2001		PRESTR CONC PIL (16 IN SQ) and	DOLLARS CENTS	LF	32,184.000	29
	416	2018	001	DRILL SHAFT (SIGN MTS)(24 IN and	) DOLLARS CENTS	LF	69.000	30
	416	2030	001	DRILL SHAFT (TRF SIG POLE) (2	24 IN) DOLLARS CENTS	LF	60.000	31
	416	2032	001	DRILL SHAFT (TRF SIG POLE) (3	36 IN) DOLLARS CENTS	LF	136.000	32

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WOR		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	416	2033	001	DRILL SHAFT (TRF SIG POLE) (4		LF	16.000	33
				and	DOLLARS CENTS			
	416	2034	001	DRILL SHAFT (TRF SIG POLE) (4	48 IN) DOLLARS CENTS	LF	40.000	34
	120	2002	000	and	CENTS	CIT	0.200	25
	420	2002	002	CL B CONC (FLUME) and	DOLLARS CENTS	CY	8.200	35
	420	2004	002	CL C CONC (BENT)		CY	156.400	36
				and	DOLLARS CENTS			
	420	2006	002	CL C CONC (RAIL FOUNDATION	N) DOLLARS	CY	7.000	37
				and	CENTS			
	423	2001		RETAINING WALL (MSE)	DOLLARS	SF	4,413.000	38
				and	CENTS			
	423	2006		RETAINING WALL (CONC BLOC and	CK) DOLLARS CENTS	SF	1,420.000	39
	12.5	2010			CENTS	I.D.	1.074.000	40
	425	2019		PRESTR CONC U-BEAM (U54) and	DOLLARS CENTS	LF	1,054.000	40
	428	2001	001	CONC SURF TREAT (CLASS I)	DOLLARS	SY	10,464.000	41
				and	CENTS			
	429	2001		CONC STRUCT REPAIR	DOLLARS	SF	10.000	42
				and	CENTS			
	429	2002		CONC STRUCT REPAIR (LESS T	DOLLARS	SF	2.500	43
				and	CENTS			

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WOR		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	429	2003		CONC STRUCT REPAIR (1" TO 6	") DOLLARS CENTS	SF	116.000	44
	430	2002		CL C CONC FOR EXT STR (ABU	T) DOLLARS CENTS	CY	71.000	45
	430	2003		CL C CONC FOR EXT STR (BEN'	Γ) DOLLARS CENTS	CY	623.200	46
	430	2055		CL S CONC FOR EXT STR (APPR	SLAB)  DOLLARS  CENTS	CY	62.000	47
	430	2158		CL S CONC FOR EXT STR (SLAF	DOLLARS CENTS	SF	98,281.000	48
	432	2001		RIPRAP (CONC)(4 IN) and	DOLLARS CENTS	CY	4.500	49
	432	2027		RIPRAP (SPECIAL)	DOLLARS CENTS	CY	915.000	50
	432	2066		RIPRAP (CONC)(CL B) and	DOLLARS CENTS	CY	145.200	51
	438	2002		CLEAN AND SEAL EXIST JOINT and	DOLLARS CENTS	LF	1,950.000	52
	450	2003		RAIL (TY T203) and	DOLLARS CENTS	LF	4,201.000	53
	450	2007		RAIL (TY T501) and	DOLLARS CENTS	LF	560.000	54

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WOR		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	450	2025		RAIL (TY PR1) and	DOLLARS CENTS	LF	355.000	55
	450	2151		RAIL (TY T412)(SPL) and	DOLLARS CENTS	LF	1,156.000	56
	454	2001		SEALED EXPANSION JOINT (4 I and	N)(SEJ-A) DOLLARS CENTS	LF	88.000	57
	454	2005		ARMOR JOINT (WITH SEAL) and	DOLLARS CENTS	LF	426.000	58
	464	2003		RC PIPE (CL III)(18 IN) and	DOLLARS CENTS	LF	312.000	59
	465	2012	001	INLET (COMPL)(TY A) and	DOLLARS CENTS	EA	1.000	60
	467	2234		SET (TY II)(18 IN)(RCP)(6:1)(C) and	DOLLARS CENTS	EA	9.000	61
	467	2236		SET (TY II)(24 IN)(RCP)(6:1)(C) and	DOLLARS CENTS	EA	9.000	62
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) and	DOLLARS CENTS	EA	40.000	63
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) and	DOLLARS CENTS	EA	4.000	64
	495	2001		RAISING EXIST STRUCT	DOLLARS CENTS	LS	1.000	65

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ALT	ITEM NO	NO CODE NO. WRITTEN IN WORDS		UNIT	APPROX QUANTITIES	DEPT USE ONLY		
	496	2002		REMOV STR (INLET) and	DOLLARS CENTS	EA	1.000	66
	496	2007		REMOV STR (PIPE) and	DOLLARS CENTS	LF	104.000	67
	500	2001	005	MOBILIZATION and	DOLLARS CENTS	LS	1.000	68
	502	2001	033	BARRICADES, SIGNS AND TRADLING and	FFIC HAN- DOLLARS CENTS	МО	18.000	69
	506	2017	013	CONSTRUCTION EXITS (INSTAI	LL) (TY 2) DOLLARS CENTS	SY	856.000	70
	506	2019	013	CONSTRUCTION EXITS (REMO	VE) DOLLARS CENTS	SY	856.000	71
	506	2026	013	FRNT END LOADER WORK (ERSCONT) and	SN & SEDM  DOLLARS  CENTS	HR	48.000	72
	506	2035	013	BIODEGRADABLE EROSION CO LOGS(18")	DOLLARS CENTS	LF	330.000	73
	512	2005	001	PORT CTB (FUR & INST)(SNGL S	SLP)(TY 2) DOLLARS CENTS	LF	22,710.000	74
	512	2008	001	PORT CTB (FUR & INST)(LOW P	ROF)(TY 1) DOLLARS CENTS	LF	5,200.000	75

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	512	2009	001	PORT CTB (FUR & INST)(LOW PROF)(TY 2 DOLLAR and CENTS	1	200.000	76
	512	2041	001	PORT CTB (REMOVE)(SNGL SLP) (TY 2)  DOLLAR and  CENTS	LF .S	22,710.000	77
	512	2044	001	PORT CTB (REMOVE)(LOW PROF)(TY 1)  DOLLAR and  CENTS	LF .S	5,200.000	78
	512	2045	001	PORT CTB (REMOVE)(LOW PROF)(TY 2)  DOLLAR and  CENTS	.S LF	200.000	79
	529	2012		CONC CURB & GUTTER (TY A)(BARRIER)  DOLLAR and  CENTS		1,330.000	80
	529	2019		CONC CURB & GUTTER (TY B)(MOUNTAE DOLLAR and CENTS	*	3,496.000	81
	529	2024		CONC CURB (MOUNTABLE)  DOLLAR and  CENTS	.S LF	6,820.000	82
	530	2005		INTERSECTIONS (ACP)  DOLLAR and CENTS	.S SY	1,038.000	83
	530	2010		DRIVEWAYS (CONC)  DOLLAR and  CENTS	SY	398.000	84
	530	2011		DRIVEWAYS (ACP)  DOLLAR and  CENTS	SY SY	3,182.000	85
	531	2005		CURB RAMPS (TY 1)  DOLLAR and  CENTS	EA .S	2.000	86

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WORI		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	531	2006		CURB RAMPS (TY 2)		EA	1.000	87
				and	DOLLARS CENTS			
	531	2010		CURB RAMPS (TY 7) and	DOLLARS CENTS	EA	2.000	88
	531	2011		CURB RAMPS (TY 8) and	DOLLARS CENTS	EA	2.000	89
	531	2013		CURB RAMPS (TY 20) and	DOLLARS CENTS	EA	1.000	90
	531	2035		CONCRETE SIDEWALKS (5')(4") and	DOLLARS CENTS	LF	1,473.000	91
	531	2040		CURB RAMPS (TY 5) and	DOLLARS CENTS	EA	1.000	92
	531	2044		CURB RAMPS (TY 10) and	DOLLARS CENTS	EA	4.000	93
	536	2002		CONC MEDIAN and	DOLLARS CENTS	SY	106.000	94
	540	2001	002	MTL W-BEAM GD FEN (TIM POS	DOLLARS CENTS	LF	550.000	95
	540	2011	002	MTL BEAM GD FEN TRANS (TH	RIE-BEAM) DOLLARS CENTS	EA	4.000	96
	542	2001		REMOVING METAL BEAM GUA	RD FENCE DOLLARS CENTS	LF	925.000	97

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ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WORI		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	542	2002		REMOVING TERMINAL ANCHO	R SECTION DOLLARS CENTS	EA	2.000	98
	544	2001	001	GUARDRAIL END TREATMENT and	(INSTALL) DOLLARS CENTS	EA	2.000	99
	544	2005	001	GDRAIL END TRT(INST)(WOOD and	POST)(TY II) DOLLARS CENTS	EA	4.000	100
	545	2001		CRASH CUSH ATTEN (INSTL) and	DOLLARS CENTS	EA	3.000	101
	545	2003		CRASH CUSH ATTEN (REMOVE) and	DOLLARS		3.000	102
	610	2063	006	RELOCATE RD IL ASM (SHO-BA and	SE) DOLLARS CENTS	EA	10.000	103
	618	2012		CONDT (PVC) (SCHD 40) (1") and	DOLLARS CENTS	LF	382.000	104
	618	2018		CONDT (PVC) (SCHD 40) ( 2") and	DOLLARS CENTS	LF	3,338.000	105
	618	2019		CONDT (PVC) (SCHD 40) (2") (BC	DRE) DOLLARS CENTS	LF	100.000	106
	618	2024		CONDT (PVC) (SCHD 40) (4") and	DOLLARS CENTS	LF	763.000	107
	618	2025		CONDT (PVC) (SCHD 40) (4") (BC	DRE) DOLLARS CENTS	LF	759.000	108

	ITEM-CODE							DEDE
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WOR		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	620	2009	001	ELEC CONDR (NO. 6) BARE		LF	238.000	109
				and	DOLLARS CENTS			
	620	2010	001	ELEC CONDR (NO. 6) INSULATE	ED DOLLARS CENTS	LF	498.000	110
	620	2011	001	ELEC CONDR (NO. 8) BARE and	DOLLARS CENTS	LF	1,571.000	111
	621	2002		TRAY CABLE (3 CONDR) (12 AV	VG) DOLLARS CENTS	LF	2,940.000	112
	624	2008		GROUND BOX TY A (122311) Wand	/APRON DOLLARS CENTS	EA	55.000	113
	624	2012		GROUND BOX TY C (162911) Wa	APRON DOLLARS CENTS	EA	5.000	114
	625	2004	001	ZINC-COAT STL WIRE STRAND and	(3/8 IN) DOLLARS CENTS	LF	1,150.000	115
	628	2144		ELC SRV TY T 120/240 000 (NS)C	GS(L)TP(O) DOLLARS CENTS	EA	1.000	116
	628	2145		ELC SRV TY T 120/240 000 (NS)C	GS(L)TS(O) DOLLARS CENTS	EA	2.000	117
	636	2001		ALUMINUM SIGNS (TY A) and	DOLLARS CENTS	SF	13.400	118
	636	2002		ALUMINUM SIGNS (TY G) and	DOLLARS CENTS	SF	332.500	119

ITEM-CODE		E				DEDE	
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	644	2001		INS SM RD SN SUP&AM TY 10BWG(1) SA(P)  DOLLARS and  CENTS	EA	120.000	120
	644	2004		INS SM RD SN SUP&AM TY 10BWG(1) SA(T)  DOLLARS and  CENTS	EA	106.000	121
	644	2006		INS SM RD SN SUP&AM TY 10BWG(1) SA(U)  DOLLARS and  CENTS		2.000	122
	644	2027		INS SM RD SN SUP&AM TY S80(1) SA(U)  DOLLARS and  CENTS	EA	7.000	123
	644	2028		INS SM RD SN SUP&AM TY S80(1)SA(U-1EXT DOLLARS and CENTS	) EA	4.000	124
	644	2031		INS SM RD SN SUP&AM TY S80(1) SA(U-WC)  DOLLARS and  CENTS	EA	3.000	125
	644	2056		RELOCATE SM RD SN SUP & AM TY 10BWG DOLLARS and CENTS	EA	4.000	126
	644	2060		REMOVE SM RD SN SUP & AM  DOLLARS and  CENTS	EA	222.000	127
	647	2001		INSTALL LRSS (STRUCT STEEL)  DOLLARS and CENTS	LB	1,828.000	128
	647	2002		RELOCATE LRSA  DOLLARS and CENTS	EA	2.000	129
	647	2003		REMOVE LRSA  DOLLARS and  CENTS	EA	4.000	130

	ITI	ITEM-CODE					DEDE
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	658	2263	006	INSTL DEL ASSM (D-SY)SZ 1(FLX)GND DOLLARS and CENTS	EA	4.000	131
	658	2316	006	INSTL OM ASSM (OM-2Z)(FLX)GND  DOLLARS and  CENTS	EA	26.000	132
	662	2001		WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	2,096.000	133
	662	2004		WK ZN PAV MRK NON-REMOV (W) 4" (SLD)  DOLLARS and  CENTS	LF	1,140.000	134
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W DOLLARS and CENTS	EA	7,348.000	135
	666	2003	008	REFL PAV MRK TY I (W) 4" (BRK)(100MIL)  DOLLARS and  CENTS	LF	22,320.000	136
	666	2012	008	REFL PAV MRK TY I (W) 4" (SLD)(100MIL)  DOLLARS and  CENTS	LF	38,135.000	137
	666	2036	008	REFL PAV MRK TY I (W) 8" (SLD)(100MIL)  DOLLARS and  CENTS	LF	13,475.000	138
	666	2048	008	REFL PAV MRK TY I (W) 24"(SLD)(100MIL)  DOLLARS and  CENTS	LF	3,403.000	139
	666	2054	008	REFL PAV MRK TY I (W) (ARROW) (100MIL)  DOLLARS and  CENTS	EA	58.000	140
	666	2057	008	REFL PAV MRK TY I (W)(BIKE ARW)(100MIL)  DOLLARS and  CENTS	EA	13.000	141

	ITEM-CODE				DEPT		
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	USE ONLY
	666	2063	008	REFL PAV MRK TY I(W)(BIKE SYML)(100MII DOLLARS and CENTS	EA	26.000	142
	666	2069	008	REFL PAV MRK TY I(W)(DBL ARROW)(100MIL)  DOLLARS and CENTS	EA	8.000	143
	666	2072	008	REFL PAV MRK TY I(W)(ENTR GORE)(100MII DOLLARS and CENTS	L) EA	3.000	144
	666	2075	008	REFL PAV MRK TY I(W)(EXIT GORE)(100MIL DOLLARS and CENTS	) EA	4.000	145
	666	2093	008	REFL PAV MRK TY I(W)(UTURN ARW)(100MIL)  DOLLARS and CENTS	EA	5.000	146
	666	2096	008	REFL PAV MRK TY I (W) (WORD) (100MIL)  DOLLARS and  CENTS	EA	61.000	147
	666	2105	008	REFL PAV MRK TY I (Y) 4" (BRK)(100MIL)  DOLLARS and  CENTS	LF	100.000	148
	666	2111	008	REFL PAV MRK TY I (Y) 4" (SLD)(100MIL)  DOLLARS and  CENTS	LF	42,697.000	149
	666	2123	008	REFL PAV MRK TY I (Y) 8" (SLD)(100MIL)  DOLLARS and  CENTS	LF	1,374.000	150
	666	2132	008	REFL PAV MRK TY I (Y) 24"(SLD)(100MIL)  DOLLARS and  CENTS	LF	1,040.000	151

	ITEM-CODE							DEDE
ALT	ITEM NO	DESC CODE	S.P. NO.		UNIT BID PRICE ONLY. WRITTEN IN WORDS		APPROX QUANTITIES	DEPT USE ONLY
	672	2010	034	REFL PAV MRKR TY I-A	DOLLARS CENTS	EA	31.000	152
	672	2012	034	REFL PAV MRKR TY I-C	DOLLARS CENTS	EA	92.000	153
	672	2015	034	REFL PAV MRKR TY II-A-A	DOLLARS CENTS	EA	312.000	154
	672	2017	034	REFL PAV MRKR TY II-C-R and	DOLLARS CENTS	EA	1,863.000	155
	677	2001		ELIM EXT PAV MRK & MRKS ( 4 and	") DOLLARS CENTS	LF	10,486.000	156
	680	2001		INSTALL HWY TRF SIG (FLASH and	BEACON) DOLLARS CENTS	EA	1.000	157
	680	2002		INSTALL HWY TRF SIG (ISOLAT and	ED) DOLLARS CENTS	EA	5.000	158
	682	2001	001	BACK PLATE (12 IN) (3 SEC) and	DOLLARS CENTS	EA	45.000	159
	682	2002	001	BACK PLATE (12 IN) (4 SEC) and	DOLLARS CENTS	EA	2.000	160
	682	2003	001	BACK PLATE (12 IN) (5 SEC) and	DOLLARS CENTS	EA	1.000	161
	682	2012	001	LOUVER (12 IN) (ADJUSTABLE) and	DOLLARS CENTS	EA	6.000	162

ALT	ITI	EM-COI	ЭE					DEDE
	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ON WRITTEN IN WORI		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	682	2014	001	PED SIG SEC (12 IN) LED (2 INDI	CATIONS) DOLLARS CENTS	EA	34.000	163
	682	2022	001	VEH SIG SEC (12 IN) LED (GRN A	ARW) DOLLARS CENTS	EA	11.000	164
	682	2023	001	VEH SIG SEC (12 IN) LED (GRN) and	DOLLARS CENTS	EA	38.000	165
	682	2024	001	VEH SIG SEC (12 IN) LED (YEL A	ARW) DOLLARS CENTS	EA	9.000	166
	682	2025	001	VEH SIG SEC (12 IN) LED (YEL) and	DOLLARS CENTS	EA	44.000	167
	682	2026	001	VEH SIG SEC (12 IN) LED (RED A	ARW) DOLLARS CENTS	EA	9.000	168
	682	2027	001	VEH SIG SEC (12 IN) LED (RED) and	DOLLARS CENTS	EA	42.000	169
	684	2010		TRF SIG CBL (TY A) (12 AWG) ( 5 and	CONDR) DOLLARS CENTS	LF	9,578.000	170
	684	2012		TRF SIG CBL (TY A) (12 AWG) (7)	CONDR) DOLLARS CENTS	LF	537.000	171
	684	2080		TRF SIG CBL (TY C) (14 AWG) ( 2 and	CONDR) DOLLARS CENTS	LF	11,531.000	172
	686	2005		INS TRF SIG PL AM(S) STR (TY F	DOLLARS CENTS	EA	1.000	173

	ITI	EM-COD	E					DEDE
ALT	ITEM NO	DESC CODE	S.P. NO.	UNIT BID PRICE ONI WRITTEN IN WORD		UNIT	APPROX QUANTITIES	DEPT USE ONLY
	686	2006		INS TRF SIG PL AM(S) STR (TY E	B) LUM DOLLARS CENTS	EA	6.000	174
	686	2037		INS TRF SIG PL AM(S) 1 ARM (36 and	o') LUM DOLLARS CENTS	EA	2.000	175
	686	2039		INS TRF SIG PL AM(S) 1 ARM (40 and	DOLLARS CENTS	EA	1.000	176
	686	2045		INS TRF SIG PL AM(S) 1 ARM (44 and	') LUM DOLLARS CENTS	EA	1.000	177
	686	2165		INS TRF SIG PL AM(S) 2 ARM (44 and	l-36')LUM DOLLARS CENTS	EA	1.000	178
	686	2213		INS TRF SIG PL AM(S) 2 ARM (55 and	5-36')LUM DOLLARS CENTS	EA	2.000	179
	687	2001		PED POLE ASSEMBLY and	DOLLARS CENTS	EA	10.000	180
	688	2001		PED DETECT (2 INCH PUSH BTN and	) DOLLARS CENTS	EA	34.000	181
	688	2002		VEH LP DETECT (SAWCUT) and	DOLLARS CENTS	LF	8,001.000	182
	6007	2001		REMOVING TRAFFIC SIGNALS and	DOLLARS CENTS	EA	5.000	183

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#### **GENERAL NOTES:**

For all pits or quarries, comply with the "Texas Aggregate Quarry and Pit Safety Act."

Provide on a weekly basis a list of equipment, including idle equipment, utilized on the project that week.

The 1-800 call services for utility locations do not include TxDOT facilities. Contact the Pharr District Signal Section (956-702-6225) for coordination with TxDOT underground lines.

### ITEM 5. Control of the Work

Prior to contract letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information. If copies of the actual cross-sections in additional to, or instead of, the diskette are requested, they will be available at the Engineers office for borrowing by copying companies for the purpose of making copies for the bidder at the bidders expense.

# **404 Permit Requirements:**

The Contractor shall note that discharge of permanent or temporary fill material into the waters of the United States (U.S.), including jurisdictional wetlands, as necessary for construction, will require specific approval of the U.S. Army Corps of Engineers (USACE) under section 404 of the clean water act.

TxDOT will obtain the appropriate nationwide or individual permit (s) when necessary as dictated by project specific conditions and the potential to affect USACE jurisdictional areas to address the work detailed in the plans. The Contractor may review the permitted plans at the office of the Area Engineer in charge of construction. TxDOT will hold the Contractor responsible for following all conditions of the approved permit. If the Contractor cannot work within the limits or scope of this permit (s), then it becomes the Contractor's entire responsibility to consult with the USACE on the need for changes or amendments to the conditions of the existing permit (s) as originally obtained by TxDOT. However, the Contractor may request TxDOT to assist in this process by providing complete and specific revised details for TxDOT review and submittal to the USACE. For off Project right of way coordination, the Contractor or his agent shall handle all activities directly with the USACE.

It is essential that any impacts to USACE jurisdictional waters of the U.S., including jurisdictional wetlands, be the minimum necessary to complete the proposed work. If the contractor needs further explanation of the conditions of the permit, including means of compliance, they may contact the Pharr District Environmental Coordinator.

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# **Project Specific Locations (PSL's) Coordination**

The contractor shall not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit area that has not been previously evaluated by the USACE as part of the permitting for this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here includes materials delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The contractor shall be responsible for any and all consultations with the USACE regarding activities, including project specific locations (PSLs), that have not been previously evaluated by the USACE. The Contractor shall provide the department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The contractor may proceed with activities in PSLs that do not affect a USACE permit area if a self determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. The contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. The contractor shall maintain copies of their determination(s) for review by the department or any regulatory agency.

The disturbed area for all project locations in the Contract, and the Contractor project specific locations (PSLs) within 1 mile of the project limits for the Contract, will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer and to the local government that operates a separate storm sewer system.

In order to expedite the approval process for PSL's or to eliminate or minimize potential impacts to project progress, initiate coordination efforts with the U.S.A.C.E. within 30 days from the date of "authorization to begin work". If this is not done, the contractor waives the right to request any contract time considerations if project progress is impacted and PSL'S approval is still pending.

Requests submitted to the area engineer will be evaluated on this basis, and will require documentation showing substantial early coordination efforts to expedite the approval process as herein stated. The request shall include a detailed chronological summary status with dates of coordination activities with the resource agencies, including those occurring after the initial coordination, to be reviewed and confirmed by the district's environmental section.

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# ITEM 8. Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.A.1 Five-Day Workweek.

TxDOT is required to provide 10 working days advanced written notice of all proposed bridge widening, rehabilitation or demolition work to the Texas Department of State Health Services (TDSHS) to allow them the opportunity to both verify information provided regarding asbestos containing materials and abatement, and observe the demolition/renovation work. Considering that this notice will be provided to TDSHS at the beginning of the project for all affected bridge work based on start and finish dates included in the Contractor's original submitted work schedule, any schedule changes proposed by the Contractor shall be submitted to TxDOT at least 15 days prior to the revised or original start date to accommodate the required coordination with TDSHS.

# ITEM 132. Embankment

Embankment (DENS CONT) shall be Type C with a max. PI of 40. Borrow used as embankment material in the top two feet below the bottom of Flexible Base shall meet the following requirements based on preliminary tests and such other tests found necessary by the Engineer.

1. The material shall be such as to produce a well-bonded embankment and shall have a minimum PI of 8 and a maximum PI of 30.

It is the Contractor's responsibility to advise the Engineer of the location of the source sufficiently in advance to avoid delay.

#### ITEM 164. Seeding for Erosion Control

During drill seeding operations, application methods shall be in accordance with the method shown in the Standard Specification Book.

SS-1 Tacking Agent shall be a ratio of 2:1, two (Emulsion) to one (water) and applied at a rate of 0.05 gallons per square yard. The SS-1 Tacking Agent required for Drill Seed operations, will not be paid for directly, but will be subsidiary to Item 164 "Drill Seeding". Watering shall not be used with the Drill Seed Method.

Cool Season or Warm Season Grasses shall be included as part of Item 164 (See Table 3 and/or Table 4 in the Standard Specification Manual for dates and seed type).

#### Seed mixture

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Seed mixture shall be as specified under Item 164.

### ITEM 166. FERTILIZER

Fertilizer rate is based on a rate of 100 Lbs. of Nitrogen per acre. The Nitrogen-Phosphorous-Potassium (NPK) ratio shall include a minimum of 5 percent phosphorous and 5 percent Potassium. Fertilizer shall be homogenized.

# ITEM 247. Flexible Base

Flexible Base Type E will be composed of caliche (argillaceous Limestone, calcareous or calcareous clay particles) and may contain stone, conglomerate, gravel, sand or granular materials when these materials are in situ with the caliche.

#### Blended material for Flexible Base TY E GR 4

The Contractor may blend base material with another caliche source or with crushed concrete, meeting the requirements for TY "D" materials, provided a minimum of 50% caliche is used. The crushed concrete may contain sand or granular materials. Stabilizing additives will not be allowed in the raw crushed concrete base. Acceptance will be under the following conditions:

Condition One (1): When both components of the blend in their individual stockpiles meet all the physical requirements of this Item, then field blending will be allowed.

Condition Two (2): When only one component of the blend passes the physical requirements of this Item, the materials shall be blended through a plant for stockpile testing and approval.

Flexible Base (TY E GR 4) shall conform to the following requirements:

# BEFORE LIME IS ADDED

Retained on Sq. Sieve	Percent Retained
2"	0
1/2"	20-60
No. 4	40-75
No. 40	70-90
Max. PI:	15
Max. Wet Ball PI:	15
Wet Ball Mill Max Amount:	50
Min. Comp. Strength PSI:	150 at 15 PSI lateral pressure
Triaxial Test	Tex-117-E

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The Wet Ball Test (Tex-116-E) shall be run and the Plasticity Index of the material passing the No. 40 sieve shall be determined (Wet Ball PI).

# After 1% lime (laboratory) is added to unlimed material

Max PI	12		
Min. Comp. Strength PSI:	180 at 15 PSI Lateral Pressure		
Triaxial Test (Lime Treated)	Tex-121-E		

Two (2) percent lime (by weight) will be incorporated into the Flexible Base in the field at the State's expense in accordance with the provisions of Items 260.

The percent of density as determined by Compaction Ratio (Tex-113-E) for the new Flexible Base shall be a minimum of 98%.

The Contractor's attention is called to the fact that certain existing and/or proposed structures may be within the limits of the Flexible Base. It shall be the Contractor's responsibility to perform construction operations without damage to these structures.

For water added under Item 247, the sulfate content should not exceed 3000-ppm and the chloride content should not exceed 3000-ppm.

#### ITEM 260. Lime Treatment (Road Mixed)

The Contractor's attention is called to the fact that certain existing and/or proposed structures are within the limits of the lime-treated Subgrade. Unless otherwise directed by the Engineer, these structures shall be installed before the final rolling of this Subgrade. It shall be the Contractor's responsibility to perform the proper lime treating operation without damage to these structures.

The slurry method of applying lime will be required, except when the lime is to be added to naturally wet materials as directed by the Engineer.

For this project, the Engineer will direct a random number of lime trucks to be check weighed.

The lime shall be added to the Flexible Base and/or salvage base at a central mixing site or mixing plant away from the construction area. The Engineer shall approve the site or plant location and method of mixing.

The percent of density as determined by Tex-121-E for the new and salvage Flexible Base shall be a minimum of 98% for all courses.

#### ITEM 300. Asphalt's, Oils and Emulsions

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Temporary ramps/detours and driveways may use performance grade binder 64-22.

# ITEM 301. Asphalt Antistripping Agents

Lime TY A or B shall be added as an Antistripping additive between the rates of 1 % minimum 2.0% maximum by weight for items 316 & 341. If the Hamburg wheel test cannot be met within these limits, Liquid Antistripping agents as approved by the Engineer may be used in conjunction with lime for items 316 & 341.

# ITEM 302. Aggregate for Surface Treatments

This project will require the following Minimum Aggregate Classification(s):

County	CSJ	Highway	Classification
Hidalgo	1804-01-057,ETC	SP 115	В

The aggregate for the surface treatment shall be surface dry before application unless otherwise directed by the Engineer.

# ITEM 310. Prime Coat (Cutback Asphaltic Material)

The Contractor shall exercise diligence in the application of asphalt by the use of flagging and rolling procedures to keep from spraying or splattering the traveling public with asphaltic material.

All existing Flexible Base, which may become exposed by the milling operation, shall be primed at the rate of 0.2 Gal/SY.

Do not apply subsequent courses over the initial prime coat any earlier than the day after the prime coat was applied, unless otherwise authorized or directed by the Engineer.

#### ITEM 316. Surface treatments

In addition to cleaning by brooming of paved surfaces to be sealed as required by this Item, blading may also be necessary to clean dirt and grass from edges of the pavement and/or turnout areas. The cost of this blading will not be paid for directly, but will be considered subsidiary to the various bid Items of the project.

When applying surface treatment at railroad crossings, a strip of paper shall be placed over the rail and flange areas across the pavement.

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The type and grade of asphalt as shown on the plans and/or as directed by the Engineer, shall be used on these projects. Asphalt cement will be used during the warm season (usually April 15th to September 15th). An emulsified asphalt will be used during the cooler season (usually September 15th to April 15th), if permitted in writing by the Engineer. The emulsified asphalt, if used, shall be HFRS-2P. Estimated quantities shown for the bid Item is based on an average of the estimated rates of application for asphaltic cement and emulsified asphalt. These rates should be used for estimating and comparison purposes only.

The one or two-course surface treatment shall be in place for a sufficient period of time in the opinion of the Engineer, for the surface treatment to properly dry and cure before placing the Asphaltic Concrete Pavement.

Traffic will not be permitted on the surface treatment unless authorized by the Engineer.

When emulsified asphalt is used, do not apply subsequent courses over the surface treatment any earlier than the day after the surface treatment was applied, unless otherwise authorized or directed by the Engineer.

# ITEM 341. Dense-Graded Hot-Mix Asphalt (QC/QA)

The contractor shall exercise diligence in the application of "Tack Coat" by the use of flagging and rolling procedures to keep from spraying or splattering the traveling public with asphaltic material.

Blading (not to exceed more than 3-ft from the pavement edge) may also be necessary to clean dirt and grass from pavement edges and turnout areas as work under this bid Item. The cost of this blading will not be paid for directly, but shall be considered subsidiary to this bid Item.

This project will require the following minimum surface aggregate Classifications:

County	CSJ	Highway	Classification
Hidalgo	1804-01-057,ETC	SP 115	A

Level-up will be placed before the surface course. An asphaltic concrete spreading and finishing machine and/or motor graders; when approved by the Engineer may be used to place the ACP level-up.

All longitudinal joints adjacent to a travel way shall be constructed with a joint maker providing a maximum ½-inch vertical edge and a minimum 6:1 edge taper or as approved by the Engineer.

#### ITEM 400. Excavation and Backfill for Structures

If the Contractor elects to cut pavement (existing/detour) for structural work beyond that required by the construction phasing shown in the plans and approved by the Engineer, it shall

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be restored at his expense and backfilled to its original condition or better in accordance with Item 400.

Unless shown otherwise in the plans, use a 1-ft depth for Item 400 Structural Excavation (Special) for gravel bedding needed below drainage structures with unstable material.

# ITEM 420. Concrete Structures

Use membrane curing, Type 2, for concrete curb, gutter and combined curb and gutter, concrete medians, directional islands and sidewalks.

Pay bent concrete as plan quantity.

#### Form Liner Treatment:

The Contractor shall not be allowed the splicing, cut and joining, gluing etc. of form liner panels. Each form liner panel shall be fabricated to form a one-piece unit to the size and specifications set forth in the plans. Form liners made of multi-use material shall be washed and cleaned after each usage. Form liners that have in the opinion of the Engineer become damaged or worn shall be replaced by the Contractor. Replacement of form liners shall be considered Incidental to the work and shall not entitle the Contractor to additional compensation.

The Contractor shall pour and finish a 3'x3' sample panel of all form liner finishes. The panels shall meet with the requirements of the plans and specifications and be approved by the Engineer before any form liners may be ordered, obtained or used. The sample panel shall considered typical for the finish, any deviation of color, grade, or depth from the sample panel shall be grounds for rejection of the form liner finish and shall be removed and replaced as specified by the contract. The sample panel or any required replacement of the form liner treatment shall not be paid for directly but shall be considered subsidiary to the various bid Items.

#### ITEM 421. Portland cement Concrete

Air entrain all concrete used in Drilled Shafts.

Provide Sulfate Resistant Concrete for all concrete piling and drilled shafts.

Provide equipment at the batch plant for determining the free moisture and/or absorption of aggregates in accordance with applicable TXDOT Test.

Provide the following items for concrete batch inspection in accordance with specifications outlined in DMS-10101, "Computer Equipment":

- (1) One Desktop Microcomputer or One Laptop Microcomputer
- (2) One Integrated Printer/Scanner/Copier/Fax Unit
- (3) Contractor-Furnished Software
- (4) Hardware

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ITEM 423. Retaining Wall

THE FOLLOWING CONCRETE BLOCK RETAINING WALL SYSTEMS ARE APPROVED FOR THIS PROJECT:

KEYSTONE RETAINING WALLS JEWELL CONCRETE PRODUCTS, INC P.O. BOX 7115 WACO, TEXAS 78716 (800) 792-3216

ANCHOR WALL SYSTEM PAVESTONE COMPANY P.O. BOX 1868 GRAPEVINE, TEXAS 76051 (817) 481-5802

VERSA-LOC RETAINING WALLS PALESTINE CONCRETE 2202 CHOCKHILL RD DALLAS, TEXAS 75212 (972) 263-5077

AMASTONE EARTH RETENTION SYSTEMS BLOCKS AND WALLS, INC. P.O. BOX 1157 DEL VALLE, TEXAS 78617 (512) 389-0270

PYRAMID BLOCKWALLS THE REINFORCED EARTH COMPANY 1331 AIRPORT FREEWAY, SUITE 302 EULESS, TEXAS 76040-4150 (817) 283-5503

STONEWALL RETAINING WALLS FEATHERLITE BUILDING PRODUCTS P.O. BOX 1029 AUSTIN, TEXAS 78767 (512) 472-2424

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MESA RETAINING WALL SYSTEM TENSAR EARTH TECHOLOGIES, INC. 5775-B GLENRIDGE DRIVE, SUITE 450 ATLANTA, GEORGIA 30328 (404) 250-1290

ALLAN BLOCK RETAINING WALLS EAGLE CONCRETE PRODUCTS 6415 HARDY STREET HOUSTON, TEXAS 77022 (800) 933-5509

T-BLOCK RETAINING WALL SYSTEM T&B STRUCTURAL SYSTEMS 637 W. HURST BLVD. HURST, TEXAS 76053 (817) 280-9858

OMEGA WALLS SHAW TECHNOLOGIES, INC. P.O.BOX 654 COLLEYVILLE, TEXAS 76034 (817) 427-0997

ROCKWOOD RETAINING WALLS DEL NORTE MASONRY PRODUCTS 4560 RIPLEY DRIVE EL PASO, TEXAS 79922 (915) 535-2375

VENTURE RETAINING WALLS VENTURE RETAINING WALL SYSTEMS 1333 WEST 120TH AVE., SUITE 312 DENVER, COLORADO 80234 (303) 254-8846

CORNERSTONE RETAINING WALLS FEATHERLITE BUILDING PRODUCTS P.O. Box 425 ROUND ROCK, TEXAS 78680 (512) 255-2573

The top block shall be fastened to the wall with a construction adhesive. The adhesive shall be as recommended by the manufacturer and approved by the engineer. Surface texture and color of

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concrete blocks shall be as approved by the engineer. A sample block unit shall be submitted to the engineer for approval. The surface finish to be opaque sealer coating.

Water furnished by the Contractor for sprinkling and compacting backfill shall be from a municipal water supply approved by the State Health Department, or shall meet the requirements for Mixing Water as specified in Item 421.

For MSE walls, provide a system from one of the following approved suppliers:

Reinforced Earth Walls The Reinforced earth Company 1331 Airport Freeway, Suite 302 Euless, TX 76040-4150 (817) 283-5503

Retained Earth Walls Foster Geotechnical 901 North Highway 77 Hillsboro, TX 76645 (254) 580-9100

Reinforced Soil Embankment Walls Texas Welded Wire, Inc. 645 W. Hurst Blvd. Hurst, TX 76053 (817) 282-4560

Strengthened Earth Walls Hanson Concrete Products 3500 Maple Ave. Dallas, TX 75219 (214) 525-5877

Tricon Retained Soil Walls Tricon Precast Inc. 15055 Henry Rd. Houston, TX 77060 (713) 931-9832

Tensar Retaining Wall System Tensar Earth Technologies, Inc. 5775-B Glenridge Dr. Atlanta, GA 30328 (404) 250-1290

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Strengthened Soil Walls Shaw Technologies Inc. P.O. Box 271448 Flower Mound, TX 75027 (972) 490-1924

VP Wall System Valley Prestress Products, Inc. P.O. Box 1367 Mission, TX 78573 (956) 584-5701

Provide the following surface finishes to all MSE permanent walls in accordance with Item 427:

- (1) Ashlar Stone form liner finish
- (2) Opaque Sealer coating (color to be determined by the Engineer)

#### ITEM 427. Surface Finishes for Concrete

Provide surface finishes for concrete as follows:

- (1) Bridge overpass and underpass structures surface area I, opaque sealer coating (color to be determined by the Engineer).
- (2) Bridge waterway crossings and bridge class box culvert structures surface area II, opaque sealer coating (color to be determined by the Engineer).

Concrete traffic barrier/railing (roadway and bridge), and retaining wall coping - opaque sealer coating (color to be determined by the Engineer) to all exposed surfaces.

The contractor shall exercise care when applying the stain as to not splatter paint on to other finishes or other form liner surfaces.

Color shall be the Buff Color produced by the Type IP Buff Cement, L.M. Scofield Company, color "Mesa Beige" (Code C-12) or IP Buff produced by Texas Industries, Inc., or equivalent as approved by the Engineer. The color-conditioning admixture shall be a single component, pigmented, water reducing concrete admixture, factory formulated and packaged in cubic yard dosage increments. Multiple color additives and pigments to be dosed separately into the mix will not be permitted. Materials for coloring the concrete shall be used in accordance with the manufacturer's recommendations. Coping for retaining walls shall not be colored, but shall be painted as shown elsewhere in the plans.

#### ITEM 430. Extending Concrete Structures

Dispose of removed material off of the right of way in accordance with federal, state and local regulations.

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#### ITEM 462. Concrete Box Culverts and Strom Drains

Provide pre-cast concrete boxes to expedite traffic handling unless otherwise shown on the plans.

Provide the Area Engineer with the casting schedule of all pre-cast concrete boxes prior to beginning any fabrication.

# ITEM 464. Reinforced Concrete Pipe

Use tongue and groove pipe where the RCP extends into the lime treated subgrade. The 4-foot depth restriction for heavy equipment passage over pipe structures is voided. The Contractor will be responsible for any construction damage to these facilities.

Do not use mortar joints.

All reinforced concrete pipe shall include rubber gaskets unless shown otherwise on the plans or directed by the engineer.

### ITEM 467. Safety End Treatment

All Type II SET's shall have riprap, Class "A" minimum, aprons as shown on the plans. The contractor may submit an alternate precast SET design for approval by the Engineer.

#### ITEM 471. Frames, Grates, Rings and Covers

All grates will be tack welded to the frames in a manner satisfactory to the Engineer.

#### ITEM 502. Barricades, Signs and Traffic Handling

Shadow vehicles equipped with Truck-Mounted Attenuators are required.

Replace/relocate all regulatory signs removed due to construction operations with a same sign on fixed support(s) immediately upon its removal. First obtain project Engineer approval before removing any regulatory roadway sign. Required flaggers are to be available to direct traffic during sign intermediate down time.

Relocate any Directional Sign Assemblies removed during construction operations immediately upon their removal.

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These signs shall be relocated to a location in accordance with the Latest Version of the "Texas Manual on Uniform Traffic Control Devices". In no case will a sign be removed without a replacement sign and support(s) being readily available and a location established. Removal and relocation of these signs required for traffic control will not be paid for directly, but shall be considered subsidiary to Item 502.

# ITEM 504. Field Office and Laboratory

Furnish (1) Field Office (Type C).

Furnish (1) cellular phone & service.

Provide the following items in accordance with specifications outlined in DMS-10101, "Computer Equipment":

Furnish (1) laptop computer, (1) Secure Digital (SD) Card and Reader/Writer and (1) integrated printer/fax/copier and internet service. Provide wireless broadband internet service where available.

The Contractor will furnish a Type D Structure (Asphalt Mix Laboratory) modified by the following.

# <u>Laboratory room:</u>

The other room of this building will be used as a laboratory and will include access to a bathroom facility from the interior. The laboratory and bathroom facility will have the walls, ceiling and floor insulated such that the air temperature can be maintained at 76 degrees Fahrenheit at all times.

Furnish for the Department's use in the asphalt laboratory one (1) desktop computer.

#### ITEM 512. Portable Concrete Traffic Barrier

Haul concrete median barriers from the TxDOT office in Pharr, Texas to the project site to be used in conjunction with the suggested traffic control sheets as directed by the Engineer. If needed, modify the ends of the concrete median barriers where the temporary end treatment is attached to the concrete median barrier.

Maintain the concrete median barrier in first class condition and, when no longer needed for traffic control, return the concrete median barriers to the TxDOT office in Pharr, Texas. Any concrete median barrier damaged beyond reasonable repair shall be replaced at the Contractor's expense.

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During the various construction phases, provide drainage slots in every fourth (min) temporary concrete traffic barrier used for traffic control in order to handle temporary drainage. Provide any additional drainage measures needed as directed by the Engineer.

# ITEM 528. Colored Textured Concrete and Landscape Pavers

#### Surface Finishes for Colored Textured Concrete

Finish color for the pattern for colored-textured concrete shall be "Mesa Beige" with pattern type "Ashlar Stone Finish". The Contrcator shall pour a 3' x 3' sample panel of the proposed colored-texture concrete. The panel shall meet with the requirements of the plans and specifications and be approved by the Engineer before further colored-textured concrete may be poured. The sample panel may be considered typical for the finish. Any deviation of color, grade, or depth from the sample panel shall be grounds for rejection and it shall be removed and replaced as specified by the Engineer. The sample Panel or any required replacement of "color textured concrete" shall not be paid for directly but shall be considered subsidiary to Item 528, "Colored Textured Concrete and Landscape Pavers".

#### ITEM 529. Concrete Curb, Gutter and Combined Curb and Gutter

Before final acceptance of the project, remove discoloration caused by tire marks, mud, asphalt, paint or other similar material by any method satisfactory to the Engineer to achieve a uniform color and texture of the finished surface exposed to view.

#### ITEM 530. Public & Private Driveways

Prime coat shall meet the requirements of Item 310.

Daily testing requirements for Hot Mix Asphaltic Concrete Pavements for drives, commercial entrances and/or turnouts may be waived by the Engineer.

#### ITEM 531. Sidewalks

Construct <sup>1</sup>/<sub>4</sub>-inch thick score joints at a maximum 6-foot spacing and expansion joints at a maximum 30-foot spacing. Construct a joint in the center of the sidewalk if it is over 15-feet wide. For steel reinforcement, use 6x6-inch spacing with #3 bars or 6x6 – D6 welded wire fabric.

# ITEM 540. Metal Beam Guard Fence

The optional terminal anchor post with the terminal connector will be required as shown on the Metal Beam Guard Fence Standard.

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### ITEM 542. Removing Metal Beam Guard Fence

Dispose all metal beam guard fence materials unless shown otherwise in the plans.

### ITEM 544. Guardrail End Treatments

Label "end treatment type" on backside of unit at time of installation.

# ITEM 585. Ride Quality for Pavement Surfaces

Quality control results shall be submitted to TxDOT the next working day after each day's paving.

Pavement areas with public turnout intersections that carry major traffic volumes will not be subjected to inertial profiler testing. These areas shall be evaluated using the 10-ft. Straightedge.

Diamond grinding shall be used to remove localized roughness.

Use Surface Test Type B pay adjustment schedule 3 to evaluate ride quality of the travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces." This includes ramps and service road travel lanes.

#### ITEM 610, Roadway Illumination Assemblies

Luminaires shown on the proposed Traffic Signal installation layout sheets may be shown at an angle for clarity. All luminaires shown shall be installed perpendicular to the main roadway under construction.

Each cable for luminaires shall be identified in each ground box, pole base, or other accessible location with yellow electrical tape wrapped around the cable. The tape marking shall be at least 2 inches.

All luminaires on traffic signal poles shall be rated for 120 vac.

Luminaires installed on traffic signal poles will not be paid for directly, but shall be considered subsidiary to the various bid items of the project.

# ITEM 618, Conduit

All conduit ends in pole bases, controllers and ground boxes shall be plugged with 4 to 6 inches of polyurethane sealant or its equivalent after cables are in place.

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Conduit shall be placed in a straight line not to exceed 2.0 feet in any direction. The depth of the conduit shall be 1.5 feet except when crossing a roadway where the depth shall not be more than 3.0 feet nor less than 1.0 foot below the bottom of the base material in the roadway when placed by the jacking or boring method. Any evidence of damage to the roadway during the jacking or boring operation shall be sufficient grounds to stop the method being used.

Conduit runs under paved roadways or driveways shall be jacked or bored and then pushed across. At these locations, galvanized rigid metal may be used. All other runs shall be made by trenching. Existing pavement which will be removed, reconstructed or overlaid with new pavement may be trenched across.

Trenches for conduit runs shall be a minimum 2 feet deep and 4 inches wide. The conduit shall be placed on a 2-inch sand cushion and then backfilled with a minimum of 6 inches sand fill. The remainder of the trench shall be backfilled with flexible base, soil or two-sack concrete as required by location of conduit on the project or as directed. The top 3 inches shall match the existing surface material.

#### ITEM 620, Electrical Conductors

Do not use non-certified persons to perform electrical work. See Item 7.15, "Electrical Requirements" for additional details.

For flashing beacons (Item 685) and ped poles (Item 687) whin this project, provide breakaway electrical connectors for breakaway poles. Use BUSSMAN HEBW, LITTLEFUSE LEB, FERRAZ-SHAWMUT FEB, or equal on ungrounded conductors. For grounded conductors, use BUSSMAN HET, LITTLEFUSE LET, FERRAZ-SHAWMUT FEBN, or equal. These breakaway connectors have a white colored marking and a permanently installed solid neutral.

#### ITEM 628, Electrical Service

Arrange for and cooperate with the utility company to provide electrical power service(s) shown and as required by the plans. A meter will be required on all electrical services.

#### ITEMS 636, Aluminum Signs

Complete sign blanks and panels shall be handled and stored at the job site in such a manner that corners, edges and faces are not damaged. Finished sign blanks shall be stored in either a weatherproof warehouse or outside and off the ground in a vertical position. All paper, cardboard and chemically treated separators and packaging shall be removed prior to outside storage.

# ITEM 644, Small Roadside Sign Supports and Assemblies

All signs shall be installed as shown in the plans and in accordance with the current edition of the "Texas Manual on Uniform Traffic Control Devices" and the "Sign Crew Field Book" (SCFB).

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All signs shall be erected according to the locations shown on the signing layout sheets except that a sign may be shifted in order to secure a more desirable location. All sign locations will be staked as shown in the plans and as approved. It is the intent of the plans to erect all roadside traffic signs with the sign edge a minimum of 6 feet from the edge of the shoulder, or if none, 12 feet from the edge of the travel lane. In curb and gutter sections the sign edge shall be a minimum of 2 feet from the face of the curb.

For this project, aluminum type sign blanks as provided for under Item 636 will be required for all proposed signing installed under Item 644. Aluminum sign blanks less than 7.5 square feet shall be 0.08 inch thick, sign blanks 7.5 to 15 square feet shall be 0.100 inch thick and sign blanks greater than 15 square feet shall be 0.125 inch thick.

All excess excavation shall be spread uniformly inside the right of way as directed and shall be included in the price of these Items.

Sign types which design details are not shown on the plans shall conform with the latest edition of the Department's "Standard Highway Sign Design for Texas" Manual.

Signs shown to be removed shall include the complete sign installation and separate the sign post at the concrete foundation. The concrete foundation shall be disposed in accordance with this Bid Item. Except for concrete foundations, all removed sign panels, sign posts, and hardware shall remain the property of the Department. All removed sign installations shall be completely disassembled. All salvageable sections of sign panels shall be recycled by TxDOT. The removed sign material will be required to be hauled to the maintenance yard closest to the project. No signs shall be removed without prior approval.

All existing signs in this project shall be removed and relocated as determined in the field. The complete sign assembly shall be removed and the sign and post shall be separated at the concrete foundation. The concrete foundation shall be disposed of in accordance with this bid Item. No sign shall be removed without prior approval.

All excess excavation shall be spread uniformly inside the Right of Way as directed and shall be included in the price of this item.

#### ITEM 647, LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

New sign foundation stubs, when left overnight without installing signs and posts, shall be protected with flashing electric lights.

#### ITEM 656, Foundations for Traffic Control Devices

The dimensions shown on the plans for location of signal pole foundations, conduit and other Items may be varied to meet existing conditions as approved.

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The work area shall be cleaned up and all loose material resulting from the contract operations shall be removed from the work area each day before work is suspended.

No traffic signal pole shall be placed on the foundations prior to seven (7) days following placement of concrete.

# ITEM 658, Delineator and Object Marker Assemblies

Delineator assemblies shall be installed 8 feet from the edge of the shoulder unless restricted by some obstruction, in which case, the delineator assembly shall be placed between 2 and 8 feet from the edge of the shoulder.

Bi-directional installation of object markers shall be by any satisfactory method.

### ITEMS 662 AND 666, Work Zone Pavement Markings and Reflectorized Pavement Markings

All permanent pavement markings and work zone pavement markings for this project under these Items shall be 0.100 inches (100 mil) thick thermoplastic.

Any permanent pavement markings or non-removal work zone pavement markings lacking reflectivity in accordance with test method Tex 828-B, will not be paid for, as per district policy. The roadway will be re-striped at no additional compensation.

Pavement surface preparation for markings and markers will not be paid for directly, but shall be considered subsidiary to Item 666.

Prior to any striping operations, an on-site coordination meeting between all the parties involved will be required to review striping details and requirements to ensure quality work.

The beads used on this project shall meet the requirements of Departmental Materials Specification DMS-8290, Glass Traffic Beads Texas Type II & III. Use a 50% Type II/ 50% Type III mix utilizing a double drop system with Type II beads dropped first.

# ITEM 677, Eliminating Existing Pavement Markings and Markers

Asphalt and aggregate types and grades shall be as approved in writing when a surface treatment is used to eliminate existing pavement markings.

#### ITEM 680, Installation of Highway Traffic Signals

The installation of highway traffic signals shall consist of the following principal Items:

1. Furnishing and installing 8-phase full traffic actuated controllers, base mounted cabinets, conflict monitors, load switches and loop amplifiers.

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2. Furnishing and installing post mounted flashing beacon controllers and cabinets.

- 3. Furnishing and installing either, steel strain and/or mast arm poles, electrical service, luminaires, signal heads and cables, pedestrian heads and push buttons with signs that meet the "Americans with Disabilities Act" Standards, galvanized steel span wire, loop detectors, ground boxes, conduit runs and controller foundations.
- 4. Removal and disposal of existing signal material specified in the plans.
- 5. All other Items not listed above which are needed to provide for complete traffic signal installations and for proper signal operation as called for in the plans and specifications shall be furnished and installed.

Any deviation of location for proposed signal work shall be as approved.

# Signal controller

The signal installations shall be wired in accordance with the phase diagrams in the plans. The proposed base mounted cabinets shall contain 8-phase conflict monitors, which display the "R-Y-G" and "Walk" phases. In addition to detecting phasing conflicts, the Conflict monitors shall also be able to detect multiple signal head indications within every phase. The conflict monitors shall continue to operate in the event of a power supply failure in the timer and shall be able to retain in memory the time and date of the failure detection. Time changes shall be programmable in the field without replacing components or use of external devices. The full-actuated controllers shall meet N.E.M.A. Specifications. The flasher Controllers shall be solid state.

A controller manufacturer's technician shall be required to load initial timing programs into the controllers as called for in the plans. Once the traffic signals are turned on, the same technician shall monitor the signal operation and traffic movement and shall adjust settings for best signal operation. The technician shall provide the State with a certification that the timing plan and coordination has been established according to the plans. This certification shall include a record showing all settings and functions programmed into the timer and any related units.

The controller must be delivered with two sets of wiring diagrams and operating manuals enclosed in a weatherproof bag.

All wiring not covered by the plans and specifications shall be in accordance with the latest edition of the National Electrical Code,

Under this Item, the proposed cabinets shall be base mounted or as shown in the plans.

# **Existing utilities**

The exact location of existing underground utilities shall be verified with the utility companies prior to construction to avoid conflict with or damage to these utilities.

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The coordination with the utility companies will be required to make any adjustments, due to utility conflicts, as defined in the specifications or deemed necessary..

All fees and costs for permits and work done by the utility companies for any utility adjustments will be considered subsidiary to the various bid Items of this project and will not be paid for directly.

# Uniformity in equipment

- 1. All traffic signal controllers furnished shall be by the same manufacturer.
- 2. All flashing beacon controllers furnished shall be by the same manufacturer.
- 3. All traffic signal heads and flashing beacon heads furnished shall be by the same manufacturer.
- 4. All signal fittings and pipe brackets shall be of an approved metallic material and of the same design and manufacturer.
- 5. All traffic signal poles furnished shall be by the same manufacturer.
- 6. All loop detector amplifiers furnished shall be by the same manufacturer and of the same type.

# Handling of traffic

Roads and streets shall be kept open to traffic at all times. The setting of loop detectors shall be arranged so as to close only one lane of a roadway at a time. The installation of signal heads, poles and conduit shall also be arranged so as to permit the continuous movement of traffic in both directions at all times.

All construction operations shall be conducted to provide the least possible interference to traffic as shown on the plans, as provided for in the specifications and/or as directed. All signing, barricading and handling of traffic shall conform to the current edition of the "Texas Manual on Uniform Traffic Control Devices".

# Sequence of work

- 1. The existing traffic signal installations and/or flashing beacon installations shall remain in operation at all times during construction of the proposed traffic signal and/or flashing beacon installations or modifications.
- 2. The complete removal of the specified existing traffic signal and/or flashing beacon installations or specified Items when the proposed traffic signal and/or flashing beacon installations are in place and operational.
- 3. All labor, tools, and materials used to remove the specified existing traffic signal material shall not be paid for directly, but shall be considered subsidiary to the various items of work.
- 4. Final inspection shall be performed in conjunction with the district signal shop.

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# ITEM 682, Vehicle and Pedestrian Signal Heads

All signal heads shall be covered with burlap from the time of installation until the signal is placed in operation. All signal heads shall be of polycarbonate material and yellow in color. Signal heads shall have standard detachable visors. LED's shall be furnished for all traffic signal heads.

Signal heads shall be positioned carefully to provide the best view of signal indications to motorists. All signal heads shall be installed to a neat overall appearance.

Nominal height for signal heads above pavement surface shall be 18 feet 6 inches, plus/minus 3 inches.

Pedestrian signal heads shall be positioned carefully to provide the best view to pedestrians.

#### ITEM 682, Vehicle and Pedestrian Signal Heads

All flashing beacon heads shall be covered with burlap from the time of installation until they are placed in operation. All flashing beacon heads shall be of polycarbonate material and yellow in color. Flashing beacon heads shall have standard detachable visors. LED's shall be furnished for all traffic signal heads.

Flashing beacon heads shall be positioned carefully to provide the best view of head indications to motorists. All beacon heads shall be installed to a neat overall appearance.

Nominal height for flashing beacon heads above pavement surface shall be 18 feet 6 inches, plus/minus 3 inches.

# ITEM 684, Traffic Signal Cables

All signal cable shall be #12 AWG, 2/c loop lead-in shall be #14 AWG shielded and loop wires in pavement shall be #14 AWG.

Luminaires on traffic signal poles shall be connected with 3 conductor #12 AWG (XHHW) tray cable.

Connect luminaires on traffic signal poles with 3 conductor (black, white, green) #12 AWG (XHHW) tray cable.

# ITEM 686, Traffic Signal Pole Assemblies (Steel)

The locations for the proposed traffic signal poles are approximate. The exact locations will be determined in the field in coordination with the District Signal Shop.

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Erection and/or removal of poles and luminaries located near any overhead electrical power lines shall be accomplished using established industry and utility safety practices. The appropriate utility company shall be consulted with prior to beginning such work.

# ITEM 688, Pedestrian Detectors and Vehicle Loop Detectors

Loop detectors shall be installed to replace those damaged or destroyed due to construction operations. Before milling operations begin, all existing loop detector locations shall be marked and their configuration and orientation obtained for replacement with same size loop detectors.

Any deviation of location for proposed loop detector work shall be as approved.

Install loop vehicle detectors in accordance with plan Standard Sheet LD1-03 (Loop Detector Installation Details). All loop detectors shall be rectangular.

Loop wires in street shall be #14 AWG.

Splices for loop wire will be permitted only at ground boxes or pole base with Scotchcast or Hysol Electrical Insulating Resin weatherproof splice kits or approved equal.

A minimum length of 2 feet for each cable shall be left in each ground box.

All wiring not covered by the plans and specifications shall be in accordance with the latest edition of the National Electrical Code.

# Handling of traffic

Roads and streets shall be kept open to traffic at all times. The setting of loop detectors shall be arranged so as to close only one lane of a roadway at a time and to permit the continuous movement of traffic in both directions at all times.

All construction operations shall be conducted to provide the least possible interference to traffic as shown on the plans, as provided for in the specifications and/or as directed. All signing, barricading and handling of traffic shall conform to the current edition of the "Texas Manual on Uniform Traffic Control Devices".

### Sequence of work

- 1. The existing traffic signal installation shall remain in operation at all times during construction of the proposed loop detector work.
- 2. Final inspection shall be performed in conjunction with the District Signal Shop.